

This listing of claims will replace all prior versions, and listing, of claims in the application:

**Listing of Claims:**

Claims 1-2 (canceled)

Claim 3 (original): A soluble HLA ligand database assembled according to the methodology comprising the steps of:

- providing a computer system capable of storing soluble HLA ligand data as a database on a memory media;
- producing soluble HLA having ligands loaded thereon;
- isolating the loaded ligands from the soluble HLA;
- sequencing the loaded ligands to obtain soluble HLA ligand data; and
- populating the database with the soluble HLA ligand data.

Claim 4 (original): The soluble HLA ligand database of claim 3, further comprising the step of linearly manipulating the soluble HLA ligand data in the database.

Claim 5 (original): The soluble HLA ligand database of claim 3, further comprising the step of manipulating the soluble HLA ligand data in the database with a predictive algorithm.

Claim 6 (new): A soluble HLA ligand database comprising a memory media capable of being read by a computer system, the memory media storing

a data structure organizing a collection of soluble HLA ligand data.

Claim 7 (new): The soluble HLA ligand database of claim 6 produced by the steps of:

- producing soluble HLA having ligands loaded thereon;
- isolating the loaded ligands from the soluble HLA;
- sequencing the loaded ligands to obtain soluble HLA ligand data;
- and
- storing the soluble HLA ligand data onto the memory media.

Claim 8 (new): The soluble HLA ligand database of claim 6, wherein the memory media further comprises instructions stored on the memory media for receiving a request from a requestor for general soluble HLA ligand data and returning the retrieved data to the requestor, receiving a match request from the requestor for soluble HLA ligand data and returning data that matches the match request to the requestor, and receiving a predictive request from the requestor for soluble HLA ligand data and returning data that matches the predictive request to the requestor.

Claim 9 (new): The soluble HLA ligand database of claim 6, wherein the memory media further comprises instructions stored on the memory media for receiving a request via a remote connection from a requestor for general soluble HLA ligand data and returning the retrieved data via

the remote connection to the requestor, receiving a match request via the remote connection from the requestor for soluble HLA ligand data and returning data that matches the match request via the remote connection to the requestor, and receiving a predictive request via the remote connection from the requestor for soluble HLA ligand data and returning data that matches the predictive request via the remote connection to the requestor.

Claim 10 (new): The soluble HLA ligand database of claim 7, further produced by the step of linearly manipulating the stored soluble HLA ligand data.

Claim 11 (new): The soluble HLA ligand database of claim 7, further produced by the step of manipulating the stored soluble HLA ligand data with a predictive algorithm.